

The Genus *Pachymerola* Bates (Coleoptera: Cerambycidae)

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Abstract.—The monobasic genus *Pachymerola* Bates is examined and redescribed; *P. vitticollis* is discussed and briefly redescribed. A new species and subspecies are proposed: *P. ruficollis ruficollis* from western Mexico to Honduras, and *P. ruficollis humeralis* from Costa Rica. The latter is figured. A change in tribal placement is proposed, assigning *Pachymerola* to the tribe Hyboderini.

Bates (1892) described *Pachymerola vitticollis* from a single male specimen taken at Chilpancingo (alt. 4600 ft.), Guerrero, Mexico, and assigned this new genus to the tribe Compsocerini, based on an observed similarity of the male to that of *Coremia* Serville. The modified abdomen of the female, herein described, necessitates reassignment of *Pachymerola* to the Hyboderini.

S. A. Fragoso (1978) has attempted to clarify the tribal classification of the North American Cerambycinae, primarily based on studies of the terminalia of both sexes. This work may result in a future change of status for the tribe Hyboderini.

Specimens of *Pachymerola* are fairly commonly taken on blossoms of *Croton*, and other flowering woody plants, although no larval host associations are recorded. The genus is thus far known from Sinaloa in western Mexico to the Cordillera de Tilaran of Costa Rica.

Examination of the large quantity of material at hand has failed to reveal any specimen agreeing with the unique type of *P. vitticollis*.

Genus *Pachymerola* Bates

Pachymerola Bates 1892:161; Blackwelder 1946:580 (list).

Form moderately small, elongate. Pubescence fine, short, sericeous, denser on ventral surfaces. Head coarsely punctate, with front canaliculate, clypeal suture deeply impressed; eyes finely faceted, deeply emarginate; antennae slender, not longer than body, with scape clavate, second segment short, fourth segment longest, outer segments subserrate. Pronotum pyriform, about as long as broad, sides obtusely angulate, widest behind middle; disk uneven, asperate-punctate; prosternum with intercoxal process narrow, procoxal cavities closed behind; mesosternal process wider; metasternum longitudinally impressed; metacoxae enlarged, tumid. Abdomen with first sternite elongate in both sexes; female with first abdominal sternite as long as remaining sternites together, second sternite deeply emarginate, with transverse brush composed of scooplike setae arising from distal border, lateral setae longer, incurved, pointed, remaining sternites shorter, concave, hairy. Elytra somewhat flattened, nearly parallel sided, asperate-punctate, alutaceous, apices obtusely acuminate. Legs with femora moderately clavate;

metafemora enlarged, thickened, exceeding elytral apices, alutaceous, asperate; metatibiae asperate.

Type Species. — *Pachymerola vitticollis* Bates (monobasic).

KEY TO SEPARATE THE SPECIES AND SUBSPECIES OF *PACHYMEROLA* BATES

1. Pronotum black with a yellowish-gray pubescent vitta on each side of disk.
Antennae of male about as long as body, with 8th segment equal to 3rd.
Guerrero, Mexico *P. vitticollis*
– Pronotum orange or reddish, rarely infuscated, lacking pubescent vittae.
Antennae of male reaching at most to apical $\frac{1}{5}$ of elytra, with 8th segment distinctly shorter than 3rd 2.
2. Elytra black, sometimes indistinctly suffused with orange or reddish at base, without distinct triangular orange humeral maculae. Femora, at least anterior pair, usually orange at base. Mexico to Honduras
..... *P. ruficollis ruficollis*
– Elytra black, with distinct orange triangular humeral maculae. Legs black.
Costa Rica *P. ruficollis humeralis*

Pachymerola vitticollis Bates

Pachymerola vitticollis Bates 1892:161; Blackwelder 1946:580 (list).

Male. — Form moderately small, nearly parallel sided. Integument black. Antennae about as long as body, 8th segment subequal to 3rd. Pronotum asperate-punctate, with a yellowish gray pubescent vitta on each side of disk. Elytra somewhat flattened, asperate-punctate, alutaceous, with very fine, short, sericeous pubescence. Body beneath with somewhat more dense silvery-white pubescence; abdomen simple. Legs with metafemora enlarged, thickened, asperate, alutaceous, denticulate-asperate distally on underside, metatibiae sulcate, asperate. Length 8.5mm.

Female. — Unknown.

Type Locality. — Chilpancingo, Guerrero, Mexico.

Remarks. — Known from a unique male specimen, this species appears to differ from all but the most melanic individuals of the following new species by the black color, and from all individuals of that species by the vittate pronotum, and longer antennae.

Pachymerola ruficollis ruficollis Giesbert, NEW SPECIES

Male. — Form small to moderately small, nearly parallel sided, with sides feebly incurved behind middle. Integument piceous to black, with pronotum usually orange or reddish, rarely infuscated, and often with occipital area of head, bases of elytra indistinctly, femoral bases, coxae, and parts of sternum suffused with orange. Antennae reaching apical $\frac{1}{5}$ of elytra, with outer segments shortened, 8th segment shorter than 3rd. Pronotum opaque, usually densely asperate-punctate, without pubescent vittae. Elytra somewhat flattened distally, distinctly asperate-punctate, alutaceous, with fine, short, sericeous pubescence. Body beneath with somewhat denser sericeous pubescence; abdomen simple, with first sternite comprising $\frac{1}{3}$ to $\frac{1}{2}$

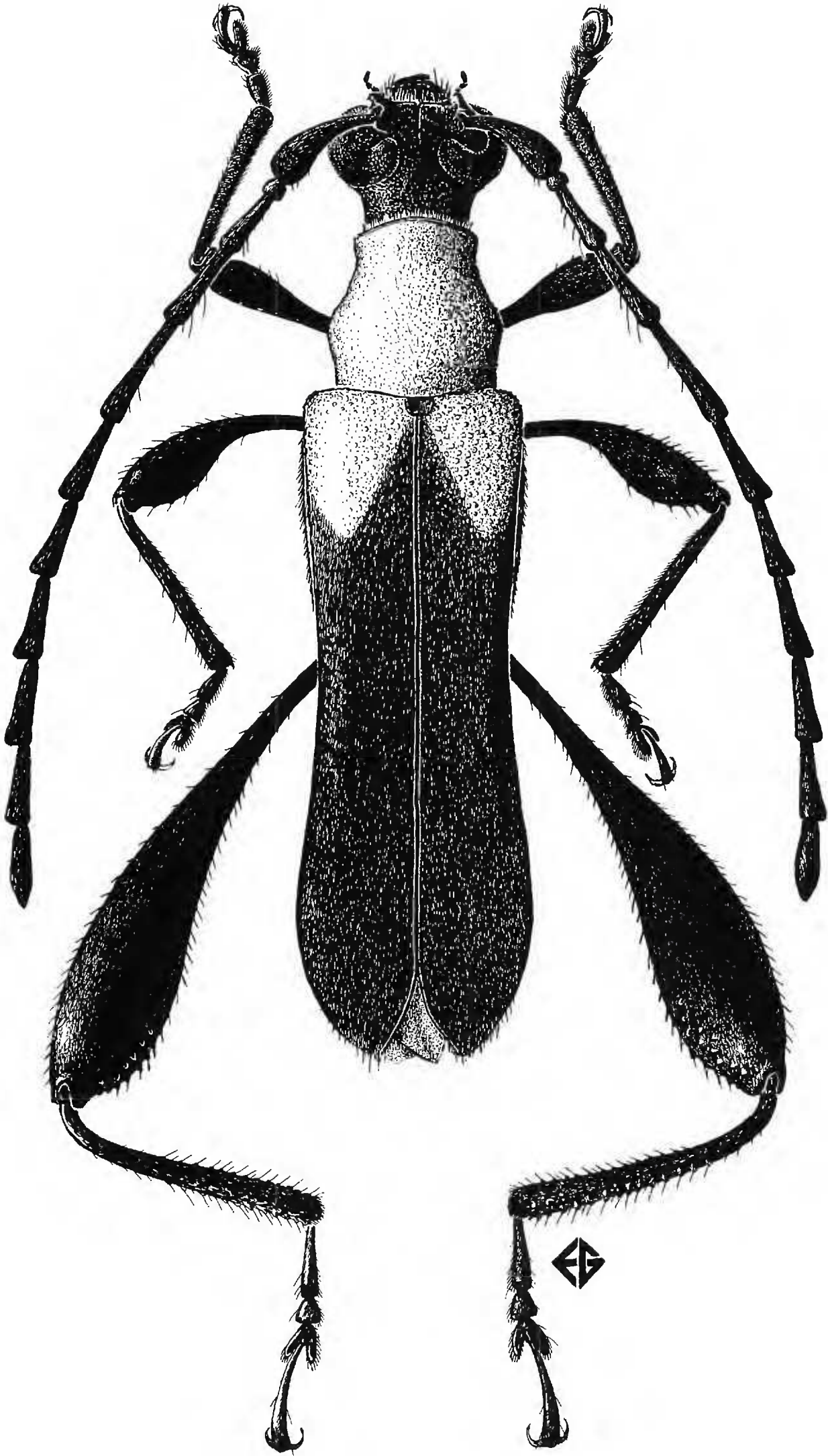
of abdominal length. Legs with metafemora enlarged, thickened, asperate, alutaceous, often somewhat nitid and denticulate distally beneath. Length 6–11mm.

Female.—Similar to male, but with antennae shorter, reaching just past middle of elytra. Abdomen modified with scopate second sternite. Length 7–13mm.

Types.—*Holotype* male, *allotype* (California Academy of Sciences), and 19 *paratypes* (7 male, 12 female) from 5 mi. N Mazatlan, Sinaloa, Mexico, July 28–August 3, 1973 (E. Giesbert). 167 additional *paratypes* as follows: MEXICO: Sinaloa; 26 males, 30 females, 5 mi. N Mazatlan, July 21–August 1, 1972, on flowers of *Buddleia wrightii* and *Jatropha curcas* (J. & M. A. Chemsak, A. & M. Michelbacher); 1 male, 5 mi. N Mazatlan, August 15, 1966 (J. A. Chemsak & J. Doyen); 1 male, 2.5 mi. N Mazatlan, August 12, 1970 (M. Wasbauer); 3 males, 1 female, 2.5 mi. N Mazatlan, August 10–11, 1970 (J. A. Chemsak); 2 males, 1 female, 5 mi. N Mazatlan, August 9–15, 1970 (J. A. Chemsak); 11 males, 14 females, 5 mi. N Mazatlan, July 25–August 1, 1973 (J. Chemsak, E. G. Linsleys & Michelbachers); 24 males, 4 females, 5 mi. N Mazatlan, July 30–August 8, 1983 (F. T. Hovore); 1 male, 5 mi. N Mazatlan, August 9, 1983 (E. Giesbert); Nayarit: 6 males, 2 females, Ahuacatlan, July 18–22, 1951, on flowers of *Donnellsmithia hintoni* M. & C. (P. D. Hurd, H. E. Evans); 3 males, Arroyo Santiago nr. Jesus Maria, July 5, 1955 (B. Malkin). Jalisco: 9 males, 3 females, Est. Biol. Chamela, July 10–20, 1985, on flowers of *Croton*. (E. Giesbert); 2 males, Est. Biol. Chamela, July 8–16, 1985 (J. Chemsak, H. Katsura, A. & M. Michelbacher); 1 male, Chamela, June 19, 1983 (S. H. Bullock); 1 male, Chamela, July 21, 1984, on flowers of *Croton* (J. A. Chemsak). Oaxaca: 2 males, 4 females, 30 mi. NE Tehuantepec, July 8, 1955 (D. Giuliani); 1 male, 6 mi. N Juchitan, July 3 1955 (Univ. Kans. Mex. Expedition); 1 male, 8 mi. N La Ventosa, July 20, 1963 (W. A. Foster); 1 female, Isth. of Tehuantepec, (F. Sumichrast); 2 males, 56 mi. NW Tehuantepec, July 27, 1963 (J. Doyen). Chiapas: 1 female, 8 mi. E Rizo de Oro, June 22, 1985 (D. Heffern). Quintana Roo: 3 males, 2 females, 18 km N Felipe Carillo Puerto, May 27–June 1, 1984 (J. E. Wappes); 1 male, 10 km N Puerto Morelos, June 15–16, 1983 (E. Giesbert). EL SALVADOR: 1 male, 1 female, Dept. Ahuachapan, Bosque El Imposible (745m), June 18, 1979 (R. D. Cave). HONDURAS: 1 female, Tegucigalpa, June 12, 1918 (Dyer).

Remarks.—Integumental color is somewhat unstable within populations in this species. The Sinaloa population exhibits the greatest tendency toward reduced melanism throughout, with pronota and femoral bases consistently orange. The Jalisco population, also with somewhat reduced melanism, exhibits pronota of a rich red color, sometimes partially infuscated. Specimens from further south in Mexico exhibit an orange pronotum, which is sometimes infuscated to varying degrees, legs with only the procoxae and bases of profemora usually suffused with orange, and consistently black elytra. The small amount of material available from Central America is also quite melanic: specimens from El Salvador are entirely black with orange pronota, the Honduran example similar, but with orange profemoral bases. A single entirely black specimen was seen from Tehuantepec, but generally, it would appear that melanism tends to increase clinally north to south.

In addition, the Sinaloan population exhibits a more nitid, less alutaceous surface on the underside of the enlarged metafemora, and northern populations exhibit a tendency toward a more densely asperate pronotal surface.



Figures 1. *Pachymerola ruficollis humeralis* Giesbert; male.

Pachymerola ruficollis humeralis Giesbert, NEW SUBSPECIES

(Fig. 1)

Male.—Form moderately small, with sides slightly incurved behind middle. Integument black, with pronotum and large triangular maculae on humeri orange. Antennae reaching apical $\frac{1}{5}$ of elytra, with 8th segment shorter than 3rd. Pronotum opaque, somewhat indistinctly asperate-punctate, without pubescent vittae. Abdomen simple, with first sternite comprising $\frac{1}{2}$ of abdominal length. Legs with metafemora elongate, thickened, asperate-punctate, alutaceous, with underside denticulate distally; metatibiae asperate. Length 9–12mm.

Female.—Similar to male, but with antennae shorter, just surpassing middle of elytra. Abdomen modified with scopate second sternite. Length 9.5–13.5mm.

Types.—*Holotype* male, *allotype* (California Academy of Sciences), and 23 *paratypes* (15 males, 8 females), from 6 km S Santa Elena, 1100m, Puntarenas prov., Costa Rica, June 5–7, 1980, on flowers of *Croton* (E. Giesbert). 36 additional *paratypes*, all from the same locality, as follows: 9 males, June 2, 1979 (H. & A. Howden); 8 males, 7 females, June 4–7, 1980 (J. E. Wappes); 7 males, 1 female, June 6–7, 1983 (E. Giesbert); 2 males, June 6–7, 1983 (J. E. Wappes); 2 males, May 18, 1984 (F. T. Hovore).

Remarks.—This apparently isolated and genetically stable population is characterized by the large orange triangular humeral patches of the elytra, and by a slightly larger average size than *Pachymerola r. ruficollis*.

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